CS-234
Technologies for societal self-organization

Week 3

Social influence and choice

- Influence at discussion stage
- Influence at decisive stage (voting)
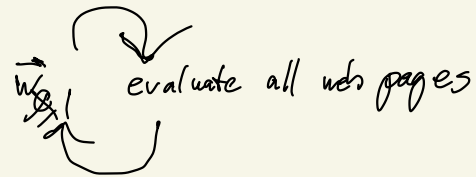- Can mod, quantify influence distributions

- Democratic voting: "one person, one vote."
- Indirect governance decisions delegated to reps, councils
- Money: "one dollar, one vote" — resource allocation:
  "vote with your wallet" — ads, lobbying, donations;
  economics
- Corporate ownership & governance: "one share, one vote"
- Bitcoin: "new form of money": Proof-of-Work hash power
  "one joule / watt-hour, one vote"
- Page Rank: inputs: web pages w/ links — at start,
  output: linear optimization   "all pages are equal"
  to $\underline{calculate}$ influence matrix

$\vec{w}_0 = 1$ evaluate all web pages

Modeling influence

- AI/ML algorithms for influence

$P_1, ..., P_n$: "people"

$\vec{w}$
$w_1, ..., w_n$: influence weights — in principle "all 1" @ decisive stage — varying in discussion stage

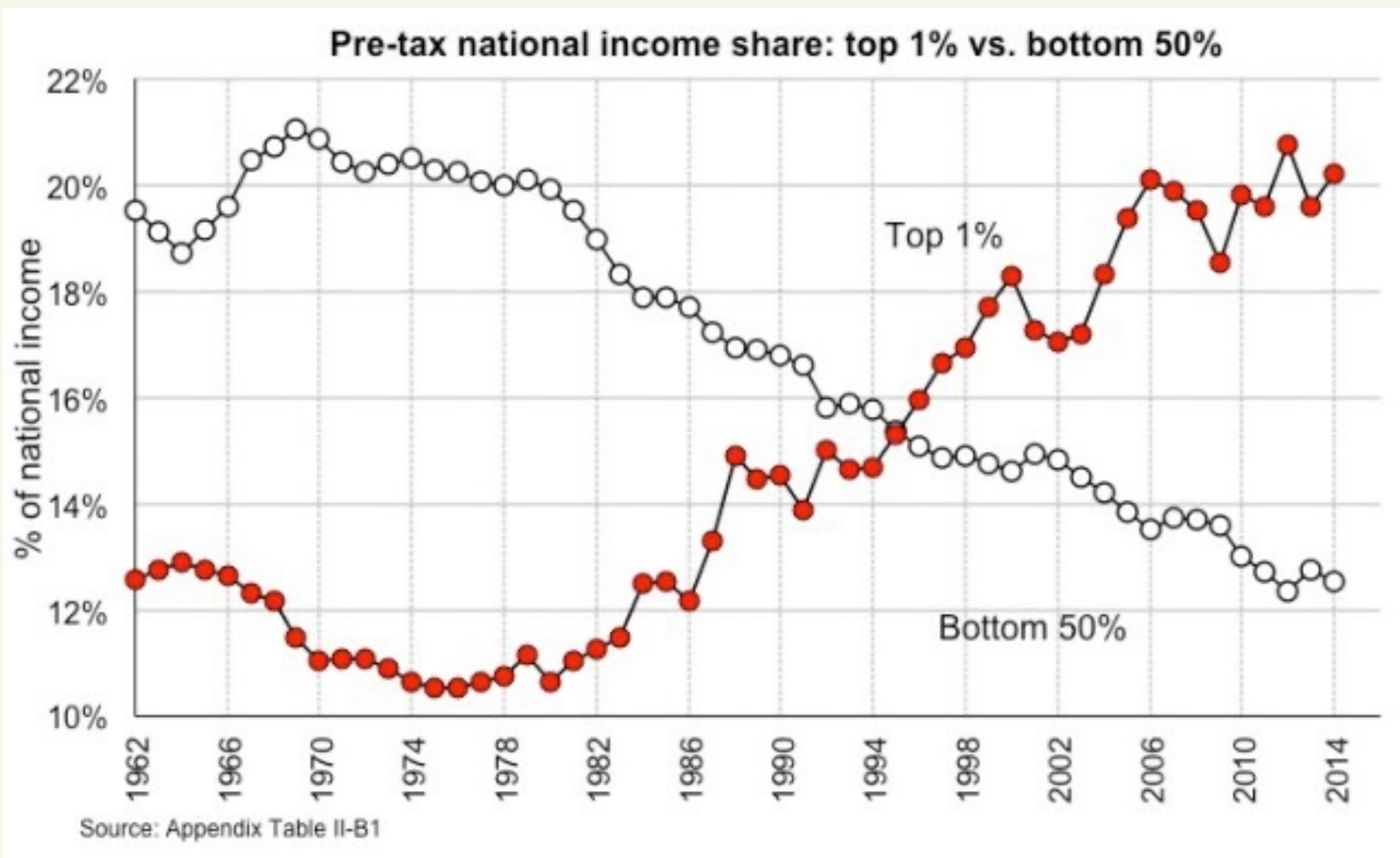e.g. Vaud — $w_i = \begin{cases} 1 & \text{if } i \text{ is citizen} \\ 0 & \text{if non-citizen} \end{cases}$

Why democracy?

The idea of democracy derives its moral strength – and popular appeal – from two key principles:

1. **Individual autonomy**: The idea that no-one should be subject to rules which have been imposed by others. People should be able to control their own lives (within reason).

2. **Equality**: The idea that everyone should have the same opportunity to influence the decisions that affect people in society.

Exceptions to equality: resource allocation — i.e., economics

Pre-tax national income share: top 1% vs. bottom 50%

Top 1%

Bottom 50%

% of national income

Source: Appendix Table II-B1

(Piketty)